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# Reduction of family stress level through therapy of psychoeducation of skizofrenia paranoid family☆

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**KEYWORDS**
Paranoid schizophrenia family psychoeducation therapy;
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**Abstract**
*Objective:* This study aims to determine the effect of paranoid schizophrenia family psychoeducation therapy on family stress levels in treating paranoid schizophrenia patients.
*Method:* It was a quantitative research with quasi experimental methods with *Pre–post test with control group*. The stress questionnaire was taken from the Depression Anxiety Stress Scale 42 was used in data collection after it was tested for validity (*r*-count between 0.372 and 0.792) and reliability (Cronbach alpha 0.91). The intervention of this study was in the form of family psychoeducation therapy given to the families of paranoid schizophrenia patients. The study was conducted at the Dr. Amino Gondhohutomo, Central Java province in August 2015–March 2016. The number of samples was 84 people consisting of 42 people in the control group, 42 intervention groups. The sampling technique uses purpose sampling until the number of samples is met. Data were bivariate analysis using the Wilcoxon test, Mann–Whitney test.
*Result:* The results showed there was an effect of schizophrenia family psychoeducation therapy on family stress levels in treating schizophrenia patients (*p* value = 0.001).
*Conclusion:* An atmosphere of minimal friction and reduced stress conditions will make family health tasks work well in patient care.


## Introduction

Schizophrenia patients experience an increase every year. In Indonesia, the prevalence of schizophrenia patients is 0.17% with a population of 252 million people, and an estimated schizophrenia number of 428,400 people. In Central Java, the prevalence of schizophrenia patients including paranoid

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schizophrenia is 0.23% of the population of 34,000,000. This figure is higher than the national percentage of 78,200 sufferers.[1]

In Central Java, paranoid schizophrenia patients show the greatest number compared to other types of schizophrenia namely; 37.6% (Annual Report 2012, three Mental Hospitals in Central Java).[2] Mubin's research results (2008) show that there are still many schizophrenia patients who have not been recorded at the Semarang City Health Service because families are reluctant to take them to health services and prefer to treat themselves at home, or bring to smart people, and there are families who bring patients directly to home mental illness.[3] Paranoid schizophrenia has distinctive signs and symptoms when compared to other types of schizophrenia. The main characteristic that must be fulfilled in paranoid schizophrenia is the frequent experience of auditory hallucinations and/or delusions.[4] The characteristics of paranoid schizophrenia, if not understood by the family, will cause problems for families caring for paranoid schizophrenia patients. A study found that families with paranoid ODS often experience psychological complaints from thinking about the strange behavior of paranoid ODS. Psychological complaints that are often felt are family anxiety, psychological burden, stigma from the community, feeling isolated, useless, isolated, feelings of grief and long psychological trauma.[5] The results of Antony, Ledley, and Heimberg's (2005) research stated that families do not know how to deal with changes in family members with paranoid schizophrenia, so families experience needing the attention and support of professional health professionals.[6]

The results of a preliminary study conducted with interviews obtained data that 7 out of 10 caregivers stated that caregivers are confused in dealing with the behavior of patients who like to be alone, talk and laugh by themselves, and sometimes talk about things that do not match reality. This makes the caregiver difficult to sleep, no appetite, easily tired, difficult to concentrate, difficult to divide time in caring for patients and meeting their own needs, so caregivers feel stressed. Based on this background it is known that families experience stress in treating paranoid schizophrenia patients, so it is necessary to address and prevent family stress in treating paranoid schizophrenia patients. One effort to overcome and prevent stress to a higher degree for the family is by implementing 5 family tasks through family psychoeducation therapy.

Family psychoeducation therapy is a way that can be used in solving problems in treating patients, one of which is stress management. The general goal of family psychoeducation therapy is to reduce the intensity of family emotions, increase the attainment of family knowledge, teach families about patient assistance and support family strength, one of which is to cope with stress.[7] Research related to the influence of family psychoeducation therapy on family stress levels in treating patients, especially paranoid schizophrenia patients, has never been done. This study aims to determine the effect of paranoid schizophrenia family psychoeducation therapy on family stress levels in caring for paranoid schizophrenia patients through quantitative research.

## Method

This research is an experimental quasi study with the type of One Group Pretest-Posttest Designs with control group. This research was conducted at Dr. Amino Gondhohutomo, Central Java province with 84 samples consisting of 42 people in the dick group and 42 intervention groups. The sampling technique uses purposive sampling until the number of samples is met. The stress questionnaire was taken from the Depression Anxiety Stress Scale 42 (DASS 42) by Lovibond which consisted of 14 statement items from 42 available statement items related to a set of subjective scales formed to measure the negative emotional status of stress. The 14 items related to stress statements are in statements no. 1, 6, 8, 11, 12, 14, 18, 22, 27, 29, 32, 33, 35, and 39. Each answer is scored using the 0–3 Likert scale, i.e. ''0'' if it is not appropriate or never, ''1'' if it is appropriate to a certain degree or sometimes, ''2'' if it corresponds to a considerable or quite frequent limit, and ''3'' if it is appropriate or very often. Stress level assessment based on the Depression Anxiety Stress Scale 42 (DASS 42) is categorized as follows: normal: if the score is 0–14, mild: 15–18, moderate: 19–25, severe: 26–33, very severe: >34.[8,9,10] On the DASS instrument that was tested by PH (2014), the family of a mental patient in RSUD Dr. H. Soewondo Kendal which has a calculated value of $r > 0.361$ with the results of the validity test of 0.372–0.792. The DASS 42 (Depression Anxiety Stress Scale 42) questionnaire was not tested for reliability because the questionnaire was already valid internationally and had a reliability value of 0.91 which was processed based on the Cronbach alpha assessment.[11]

The intervention of this study was in the form of family psychoeducation therapy given to the families of paranoid schizophrenia patients. They have met the inclusion criteria are then given an explanation for the process of family psychoeducation therapy and asked for their willingness by signing an informed consent. Make an agreement with the family to come to the hospital following the family psychoeducation therapy 3 times. Implementation of family psychoeducation therapy before it is done, first measuring the level of family stress as pre test data. The first meeting of family psychoeducation therapy is used for: session 1; introduction, session 2a; delusional treatment, session 2b; hallucination treatments and treatments of violent behavior. The second meeting of family psychoeducation therapy was used for: session 3; Stress management, session 4; overcome obstacles. Third meeting for family empowerment and session 5; utilization of health facilities. After family psychoeducation therapy is carried out monitoring for two months. Then measure the level of stress caregiver again as a post test data. Prospective respondents according to the inclusion criteria were then given sufficient information related to the willingness to become respondents and willingness to follow the process during the study both the intervention group and the control group by using informed consent. Prospective respondents have the right to refuse and not participate in therapy so that the existing data will not be used, the data are analyzed biverically using the Wilcoxon test, Mann–Whitney test.

**Table 1** Characteristics of respondents ($n = 84$).

| Characteristics of respondents | Intervention group | | Control group | | Total | | $p$ |
|---|---|---|---|---|---|---|---|
| | $f$ | % | $f$ | % | $f$ | % | |
| *Gender* | | | | | | | |
| Male | 27 | 64.3 | 22 | 52.4 | 49 | 58 | 0.376 |
| Famle | 15 | 35.7 | 20 | 47.6 | 35 | 42 | |
| *Jobs* | | | | | | | |
| Not working | 6 | 14.3 | 6 | 14.3 | 12 | 14 | 0.944 |
| Self-employed | 24 | 57.1 | 23 | 54.8 | 47 | 56 | |
| Civil servants | 5 | 11.9 | 4 | 9.5 | 9 | 11 | |
| Labor | 7 | 16.7 | 9 | 21.4 | 16 | 19 | |
| *Income* | | | | | | | |
| No income | 5 | 11.9 | 6 | 14.3 | 11 | 13 | 0.270 |
| <2 million | 8 | 19 | 3 | 7.1 | 11 | 13 | |
| ≥2 million | 29 | 69 | 33 | 78.6 | 62 | 74 | |
| *Education* | | | | | | | |
| No school | 1 | 2.4 | 0 | 0 | 1 | 1 | 0.635 |
| Primary school | 11 | 26.2 | 10 | 23.8 | 21 | 25 | |
| Junior high school | 14 | 33.3 | 13 | 31 | 27 | 32 | |
| Senior high school | 15 | 35.7 | 19 | 45.2 | 34 | 40 | |
| Colleges | 1 | 2.4 | 0 | 0 | 1 | 1 | |
| Family age, average (SD) | 45.69 (9.267) | | 44.02 (8.481) | | | | 0.392 |

## Results

Characteristics of respondents in the two groups the majority are male, work privately, income ≥2 million, senior high school education, and the average age of the respondent is 46 years (Table 1).

Family stress before TPEK-SP had an average value of 11.23 with the lowest value of 2 and the highest of 16 and both groups were equivalent to $p > 0.05$ (Table 2).

The stress of family intervention after TPEK-SP changed in the mean agreed with $p < 0.05$. Re-stress of the intervention group family after TPEK-SP has a lower mean than before TPEK-SP. The control group did not contain family pressure consisting of the first and second measurements with $p > 0.05$ (Table 3).

Family stress after TPEK-SP had a significant difference with family stress that was not carried out by TPEK-SP with $p < 0.05$. The mean family stress that TPEK-SP does is lower than that of families not done by TPEK-SP (Table 4).

## Discussion

### Family stress before family psychoeducation therapy for paranoid schizophrenia

Family stress before TPEK-SP has an average value of 11.23 or 26.7% of the 14 statements given related to family stress with the lowest value 2 and highest 16 and both groups are equivalent to $p > 0.05$. The results of the questionnaire analysis showed that the majority of ODS families feel themselves to be angry because of trivial things, tend to overreact to a situation, easily upset, very easily upset, difficult to calm down after something makes him upset, and difficult to be patient in dealing with disturbances. Some of the questionnaire statements illustrate that paranoid ODS families experience poor emotional conditions. Families who treat ODS experience emotional mental disorders.

Problems in interpersonal relationships cause stress for CSOs and their families that affect the quality of life of CSOs.[12] For families, stress arises in the form of shame, social isolation, and also a sense of confusion in meeting

**Table 2** Family stress level before intervention ($n = 84$).

| Group | Mean | Median | SD | Min–Max | $p$ value |
|---|---|---|---|---|---|
| Intervention group | 11.19 | 12 | 3.903 | 2–16 | 0.960* |
| Control group | 11.26 | 12 | 3.762 | 3–16 | |

* Mann–Whitney test.

**Table 3** Changes in family stress levels before and after getting paranoid schizophrenia family psychoeducation therapy ($n = 84$).

| Group | Before intervention | After intervention | $p$ value |
|---|---|---|---|
| Intervention group | 12 | 8.57 | 0.000* |
| Control group | 12 | 11.12 | 0.369* |

* Wilcoxon test.

**Table 4** Differences in family stress levels between groups who received and did not receive paranoid schizophrenia family psychoeducation therapy ($n = 84$).

| Group | Mean | Median | SD | Min–Max | $p$ value |
|---|---|---|---|---|---|
| Intervention group | 8.57 | 9 | 3.358 | 2–15 | 0.001* |
| Control group | 11.12 | 12 | 3.617 | 3–16 | |

* Mann–Whitney test.

the needs of sick family members who must be done continuously. Based on the results of research and existing literature, the authors draw the conclusion that paranoid ODS families can experience emotional changes that can last for a long time, and can cause stress that can worsen his health. Stress can endanger the individual itself because the impact of stress is not only about functional disorders to physiological disorders, but also has psychological effects such as anxiety and depression, but stress is more dominated by somatic or physical complaints, so efforts need to be overcome, one of them is by TPEK-SP.[13]

## Changes in family stress after getting paranoid schizophrenic family psychoeducation therapy

The mean family stress of the intervention group after TPEK-SP had a 28.6% lower rate than before the TPEK-SP compared to the control group that had no change. TPEK-SP is designed to be able to cope with family stress by providing a family understanding of ODS and teaching stress management techniques of proper deep breathing relaxation so that stress is reduced. Family stress affects the ability of families to treat paranoid ODS. Deep breathing relaxation techniques are a form of nursing care, in which nurses teach clients how to breathe deeply and how to exhale slowly. In addition to reducing pain intensity, deep breathing relaxation techniques can also increase lung ventilation and increase blood oxygenation. The mechanism of deep breathing (deep breathing) in the respiratory system in the form of a state of inspiration and respiratory expiration with a breathing frequency of 6–10 times per minute so that an increase in cardiopulmonary strain and provide a relaxing effect.[14,15]

The implementation of TPEK-SP to deal with family stress was carried out in session 3, namely stress management. Stress management is an attempt to increase awareness of individual thoughts, feelings, and perceptions. Stress management in TPEK-SP is carried out in accordance with the complaints of each family, namely by breathing exercises, progressive muscle relaxation, and five-finger hypnosis, stopping the mind and positive-affirmative thinking. There are three ways to deal with stress, including: physical ways including breathing exercises and progressive muscle relaxation; ways of mind include five-finger hypnosis, stop thoughts and positive-affirmative thinking; environmental ways include the physical environment and social environment.[11] Family stress in the control group did not have a significant change between the first and second measurements with $p > 0.05$. This shows that the need for special interventions to deal with family stress, one of which is TPEK-SP which has been proven to reduce family stress in treating ODS.

## Difference in family stress between groups that get and not get TPEK-SP

Family stress after TPEK-SP has a very significant difference compared to family stress that is not carried out by TPEK-SP. The mean stress of families who did TPEK-SP was 21% lower than that of families who did not do TPEK-SP. These results prove that the stress management given in session 3 in the form of relaxation techniques can reduce family stress. Relaxation techniques can be used to control stress, although it is a reactive action, but this technique is used to prevent stress from becoming a crisis.[16] The results are in line with research by Suerni, Keliat, and Daulima (2013), Maryatun (2012) who state that family psychoeducation therapy increases family knowledge in recognizing problems.[15,17] Based on the results of previous studies and studies it can be concluded that by recognizing the patient's problem through family psychoeducation therapy, the patient's problem will soon be resolved and stress levels can also be prevented. While some literature proves that TPEK-SP through stress management can reduce family stress and is recommended as a therapy for stressed ODS families so that they are able to treat ODS well.

The TPEK-SP program has been able to educate both knowledge and practical skills that can reduce family stress in treating paranoid ODS. The TPEK-SP program provides stress management learning with deep breathing relaxation and assertive training that has been proven to reduce family stress in treating paranoid ODS. The family stress condition decreases because the TPEK-SP program can improve the atmosphere of interaction between family members

and paranoid ODS. An atmosphere of minimal friction and reduced stress conditions will make family health tasks work well in patient care.

## Conclusions

There is an effect of schizophrenia family psychoeducation therapy on family stress levels in treating schizophrenia patients.

## Conflict of interest

The authors declare no conflict of interest.

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